



Colgate Palmolive Company

(High Priority) EXHIBIT A

Invention Record No.

719010/77691

SUMMARY OF THE INVENTION: (What have you done and why do you believe it is innovative?) no more than 50 words

This invention relates to a toothpaste and toothbrush system that when used together provides a whitening benefit to the person brushing one's teeth.

UV/paste

INVENTOR NAME(S): (Full legal name required, Residence, Title, Citizenship and Date of Birth.)

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Manager of Technology

Sr. Research Scientist

US citizen

U.S. Citizen

Citizen of Argentina

November 19, 1953

February 7, 1956

July 19, 1970

DETAILED DESCRIPTION OF THE INVENTION: (What problem have you solved? Give experimental results which demonstrate your invention. Include all controls and comparison testing which highlight and show advantages of your invention over prior art. Negative experiments should be included to demonstrate inventive nature of your positive results.)

Current at home tooth whitening techniques require several days for the user to see the effect of the treatment and are generally considered to be inconvenient, and in some cases, difficult to use.

A toothpaste formulation would contain ultraviolet brighteners as a whitening ingredient. Such optical brighteners are common in the pulp and paper industry as well as being used in applications such as laundry detergent. When these materials come into contact with ultraviolet radiation, they have a whitening or bleaching effect. Typically, this chemical reaction occurs relatively quickly after the activation by the ultraviolet energy.

Obviously, the whitening agent or brightener would be applied through the brushing of one's teeth which would be reasonably easy and familiar to all users. The activation of the brightener would occur through use of a special toothbrush in which UV light is allowed to be transmitted through the bristle field of the toothbrush. The UV light would be enclosed in the body of the handle and the light would be transmitted through a light pipe, fiber optic, or other suitable device. This UV source could be miniature UV bulbs such as those manufactured by Welch Allyn or UV emitting LED's such as those available from LEDtronics. Typical wavelength emitted would be 370 nm. Care is taken to control the intensity of the UV radiation in order to avoid possible negative health effects. Experimentation needs to be done to better determine the limits of the UV radiation.

The toothbrush used in this system could be a powered toothbrush type, i.e. a toothbrush in which there is movement of the bristles created by a motor and a drive transmission, or a manual toothbrush in which there is no driven movement of the bristles by a power source other than the user. The manual toothbrush would have the light source, and power supply for the light contained inside the brush handle with an external means of turning on the light. However, the tufts of bristles would remain relatively stationary as is common in manual toothbrushes.

PRIOR WRITTEN DOCUMENTS: (List all patents, publications, manufacturer's literature, etc. to which you have personal knowledge and which you believe, as a reasonable investigating scientist, is material (pertinent) to your invention. Please provide copies of all publications and manufacturer's literature).

EARLIEST CONCEPTION DATE: (When did you first think of the invention? Give the date and place where first written statement of the invention appears.)

First thought of invention on [REDACTED] but some concerns about health effects of UV radiation stifled interest
First written statement of this particular system is this record dated [REDACTED]

EARLIEST DATE OF DISCLOSURE TO OTHERS: (State to whom and when. Provide a written record and date if available.)

Disclosed this idea verbally to Tom Mintel on [REDACTED]

DATE OF EARLIEST SKETCH, DRAWING, SCHEMATIC COMPOUND, FORMULATION, ETC.: (Attach original or photocopy thereof. If same as "Earliest Conception Date" or "Earliest Date of Disclosure to Others" please state.)

Earliest Conception Date

[REDACTED]

EARLIEST DATE AND PLACE OF REDUCTION TO PRACTICE: (Actual working of invention [for example, the preparation of formulation, making of apparatus, etc.]. Give place, date and witness if available. Also give first date of witnessed experiment if initial experiment is not witnessed. Include all notebook and page numbers.)

Toothbrush mockups with miniature LED's were made in [REDACTED]

This invention is understood by the undersigned who have witnessed the signature(s) of the inventor(s):

SIGNATURE(S) OF INVENTOR(S):

Date: [REDACTED]

Signature: Bruce M. Russell

Print Name: Bruce M. Russell

Date: [REDACTED]

Signature: [Signature]

Print Name: D. Horic

SIGNATURE(S) OF WITNESS(ES):

Date: [REDACTED]

Signature: [Signature]

Print Name: Joseph E. Fattori

Date: [REDACTED]

Signature: [Signature]

Print Name: ROBERT MOSKOVICH

Date: [REDACTED]

Signature: _____

Print Name: _____

Date: [REDACTED]

Signature: [Signature]

Print Name: I.W. GANNIN

[REDACTED]

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